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Author(s): Esch, Ernst I.
Goettee, Jeffrey D.
Desimone, David J.
Lakis, Rollin E.
Miko, David K.

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NEN Division Funding Gap Analysis

E.-I. Esch

D. J. Desimone, J. D. Goettee, D. K. Miko, R. E. Lakis

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Historically the non-proliferation based line organizations have not been majority players in the LDRD process. This is perhaps because of a mismatch between the daily programmatic efforts of these organizations, when compared to the traditionally valued activities of the LDRD Program. The LDRD investment needs of the NEN Division are fundamentally different than the more basic science related organizations like T, P and MPA Divisions. Changes in the Los Alamos LDRD investment strategy have the potential to ensure a continuing strong non-proliferation position that is needed for national security. In addition, NEN can continue to increase the portfolio of verification methods and thereby increase its funding stream.

The work in NEN Division revolves around proliferation detection. The sponsor funding model seems to have shifted over the last decades. For the past three lustra, our sponsors are mainly interested in funding ideas and detection systems that are already at a technical readiness level 6 (TRL 6 – one step below an industrial prototype) or higher. Once this level is reached, the sponsoring agency is willing to fund the commercialization, implementation, and training for the systems (TRL8,9).

These sponsors are looking for a fast turnaround (1-2 years) technology development efforts to implement technology. To support the critical national and international needs for non-proliferation solutions, we have to maintain a fluent stream of subject matter expertise from the fundamental principals of radiation detection through prototype development all the way to the implementation and training of others. As can be seen in Figure 1, NEN Division has large funding gaps in the Valley of Death region. In the current competitive climate for nuclear nonproliferation projects, it is imminent to increase our lead in this field. By filling the funding void in the Valley of Death region, we will generate and enable a continuing and increasing

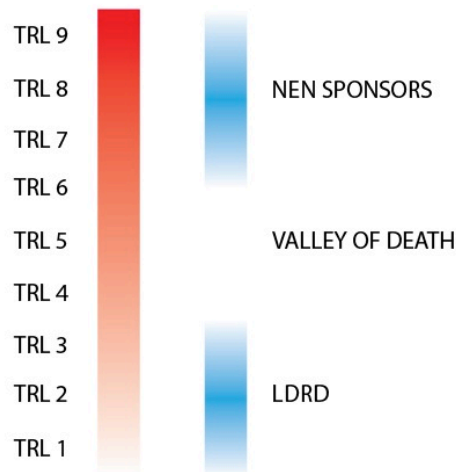


Figure 1: Funding structure for NEN.

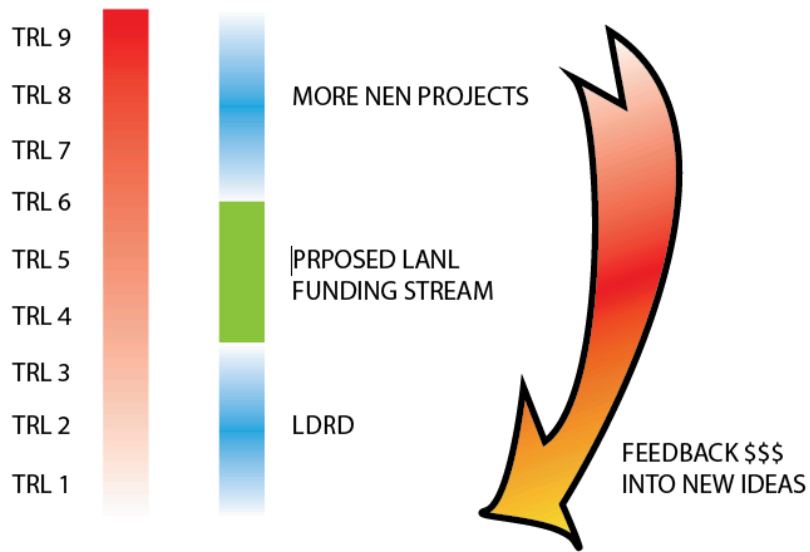


Figure 2: Proposed funding structure for NEN.

funding stream for NEN Division to ensure that the nuclear nonproliferation subject matter expertise stays at LANL. The increase of funded projects ultimately flows back into the TRL 1-3 level LDRD funding to ensure a continuous supply of transformational ideas, thereby closing the loop on a growth spiral to enable a healthy and stable business model (Figure 2).